WHAT IS CLAIMED IS:

1. A solar powered distillation system, comprising:

an extruded, molded or sprayed-on impermeable membrane lining a basin for containment.

2. The solar powered distillation system of claim 1, wherein the extruded impermeable membrane is comprised of silicon.

3. The solar powered distillation system of claim 2, wherein the silicon is a FDA approved food grade material.

4. The solar powered distillation system of claim 3, wherein the silicon is Dow Corning 40.

5. The solar powered distillation system of claim 4, wherein the silicon is black.

6. The solar powered distillation system of claim 3, wherein the silicon is black.

7. The solar powered distillation system of claim 6, wherein the silicon is Dow Corning 999-A.

8. The solar powered distillation system of claim 1, wherein the basin is formed of an aluminum sided insulation, the aluminum siding covers the outside of the basin and the membrane covers the inside of the basin.

9. The solar powered distillation system of claim 8, wherein the aluminum sided insulation is Thermax by Celotex.

10. The solar powered distillation system of claim 9, further comprising:

adjustable legs attached to said basin, said adjustable legs for supporting and leveling the distillation system to optimize the still efficiency.

11. The solar powered distillation system of claim 10, further comprising:

a carbon filter attached to an inlet or outlet of said solar power distillation system for removing various impurities.

12. A solar powered distillation system comprising:

a basin formed of an aluminum sided insulation.

13. The solar powered distillation system of claim 12, wherein the insulation is polyisocyanurate.

14. The solar powered distillation system of claim 12, wherein the aluminum sided insulation is Thermax by Celotex.

15. The solar powered distillation system of claim 14, further comprising:

an extruded, sprayed-on, or molded impermeable membrane lining said basin.

16. A solar powered distillation system comprising:

adjustable legs attached to said solar powered distillation system for supporting and leveling the distillation system.

17. The solar powered distillation system of claim 16, further comprising:

a basin made of aluminum sided insulation and having said adjustable legs attached thereto;

an extruded or molded impermeable membrane lining said basin

18. A solar powered distillation system comprising:

a carbon filter for removing volatile organic compounds.

19. The solar powered distillation system of claim 18, wherein the carbon filter is a silver impregnated activated carbon filter used to remove VOCs.

20. The solar powered distillation system of claim 19, wherein the carbon filter is coupled to an inlet house.

21. The solar powered distillation system of claim 20, wherein the carbon filter is coupled to an outlet house.

22. A method of forming a solar powered distillation system, comprising the steps of:

forming an aluminum sided insulation sheet with notched out corners and grooves for folding sides of a basin from said aluminum sided sheet;

bending notched ends of said aluminum sided insulation sheet to form said basin; and

lining said basin with an extruded, molded, or sprayed-on impermeable membrane.